

VT NRCS Practices Effects on Threatened and Endangered Species (T&E)

This table shall be used to assist in making planning decisions regarding federally threatened and endangered species. Numbers adjacent to Xs correspond to footnotes at the end of the table. Refer to the “Vermont’s Guidance Document For NRCS Compliance with the Endangered Species Act (ESA)” for further guidance on use of this table and other tools.

Zero (0) - No affect to T&E species

(NLAA) - Not Likely to Adversely Affect T&E species

Minus (-) - Potential adverse effect on T&E species if present (May require further consultation.)

Plus (+) - Practice may beneficially affect T&E species if present

Practice Name and Unit	Practice Code	0	NLAA	-	+
Access Road (Feet)	560		X1, X3	X1, X3	
Agrichemical Handling Facility	998	X			
Anaerobic Digester, Controlled Temp. (No)	366	X			
Animal Mortality Facility (No)	316	X			
Animal Trails and Walkways	575		X1, X3	X1, X3	
Brush Management (Acre)	314		X4		
Channel Stabilization (Feet)	584		X1, X6	X1, X6	
Channel Bank Vegetation (Acre)	322		X1	X1	X2
Clearing and Snagging (Feet)	326		X4		
Closure of Waste Impoundments (No)	360	X			
Composting Facility (No)	317		X3	X3	
Conservation Cover (Acre)	327				X2
Conservation Cropping Rotation (Acre)	328	X			
Constructed Wetland (Acre)	656		X4		
Contour Buffer Strips (Acre)	332	X			
Contour Farming (Acre)	330	X			
Cover Crop (Acre)	340	X			
Critical Area Planting (Acre)	342	X			
Deep Tillage (Acre)	324	X			
Dike (Feet)	356		X4		
Diversion (Feet)	362	X			
Dry Hydrant (Each)	432	X			
Early Successional Habitat Mgmt. (Acre)	647		X3	X3	
Feed Management (No)	592	X			
Fence (Feet)	382				X2
Field Border (Feet)	386	X			
Field Waste Stacking Area (No)	749	X			
Filter Strip (Acre)	393				X2
Fish Passage (Feet)	396				X2
Forage Harvest Management	511	X			
Forest Site Preparation (Acre)	490		X4		
Forest Stand Improvement (Acre)	666		X3	X3	
Forest Trails and Landings (Acre)	655		X1, X3	X1, X3	
Grade Stabilization Structure (No)	410	X			
Grassed Waterway (Acre)	412				X2

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Heavy Use Area Protection (Acre)	561				X2
Hedgerow Planting (Feet)	422				X2
Irrigation System, Microirrigation (No/Acre)	441	X			
Land Clearing (Acre)	460		X4		
Lined Waterway or Outlet (Feet)	468	X			
Livestock Shade Structure (No)	717	X			
Milkhouse Wastewater Infiltration Sys. (No)	719	X			
Manure Transfer (No)	634	X			
Monitoring Well (No)	353	X			
Mulching (Acre)	484	X			
Nutrient Management (Acre)	590				X2
Obstruction Removal (Acre)	500		X3	X3	
Open Channel (Feet)	582		X4		
Pasture and Hayland Planting (Acre)	512	X			
Pest Management (Acre)	595		X3, X5	X3, X5	X2
Pipeline (Feet)	516	X			
Pond (No)	378		X4		
Pond Sealing or Lining Flexible Membrane Lining (No) Soil Dispersant (No) Bentonite Sealant (No) Compacted Clay (No)	521-A 521-B 521-C 521-D	X			
Prescribed Burning (Acre)	338		X4		
Prescribed Forestry (Acre)	409		X3	X3	X2
Prescribed Grazing (Acre)	528		X1	X1	
Pumping Plant for Water Control (No)	533	X			
Recreation Trail and Walkway (Feet)	568		X4		
Residue Management: Seasonal (Acre)	344	X			
Residue Management: Mulch Till (Acre)	329B	X			
Residue Mgt.: No-Till & Strip Till (Acre)	329A	X			
Residue Management: Ridge Till (Acre)	329C	X			
Restoration & Mgt. of Declining Habitat (Ac)	643				X2
Riparian Forest Buffer (Acre)	391				X2
Riparian Herbaceous Buffer (Acre)	390		X4		
Roof Runoff Structure (No)	558	X			
Row Arrangement (Acre)	557	X			
Sediment Basin (No)	350		X4		
Shallow Water Management For Wildlife(Ac)	646		X4		
Spring Development (No)	574	X			
Stream Crossing (No)	578		X1	X1	
Stream Habitat Improvement & Management	395		X3	X3	X2
Streambank and Shoreline Protection (Feet)	580		X1, X6	X1, X6	X2
Stripcropping, Contour (Acre)	585	X			
Structure For Water Control (No)	587	X			
Subsurface Drain (Feet)	606	X			

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Practice Name and Unit	Practice Code	0	NLAA	-	+
Surface Drainage					
Field Ditch (Feet)	607		X4		
Main or Lateral (Feet)	608		X4		
Transition to Organic Production (Acre)	789				X2
Tree and Shrub Pruning (Acre)	660	X			
Tree/Shrub Establishment (Acre)	612				X2
Underground Outlet (Feet)	620	X			
Upland Wildlife Habitat Management (Acre)	645		X3	X3	
Use Exclusion (Acre)	472				X2
Waste Facility Cover (No)	367	X			
Waste Storage Facility (No)	313		X3	X3	
Waste Treatment Lagoon (No)	359		X3	X3	
Waste Utilization (Acre)	633				X2
Wastewater Treatment Strip	635				X2
Water and Sediment Control Basin (No)	638		X4		
Water Well (No)	642	X			
Watering Facility (No.)	614	X			
Well Decommissioning (No)	351	X			
Wetland Restoration (Acre)	657		X3	X3	X2
Wetland Enhancement (Acre)	659		X4		
Wetland Creation (Acre)	658		X4		
Wetland Wildlife Habitat Management (Acre)	644	X			
Windbreak/Shelterbelt Establishment (Acre)	380				X2
Windbreak/Shelterbelt Renovation (Acre)	580		X4		

Footnotes

X1 – Earthmoving or implementation of certain practices in some areas may negatively affect threatened or endangered plant or animal species. Further investigation is required if the practice will be placed in a habitat type where a threatened or endangered plant may reside. Review the Town and habitat location/type in the SPECIES TOWN LIST. Make a visual observation of the area to determine if the species or habitat for the species exists or appears to exist. Contact the USFWS or the Vermont Nongame and Natural Heritage Program for assistance in identifying suitable habitats. Submit form NRCS-VT-CPA-52b to the USFWS when a threatened or endangered plant is identified or evidence suggests that it may exist on the project area and when there are potential adverse effects to listed species.

The most likely negative affect to listed plants will be placement of these practices in Northeastern bulrush habitat. Northeastern bulrush habitat includes sedge meadows, beaver pond margins and hemlock swamps. Check the SPECIES TOWN LIST to determine if potential N.E. Bulrush habitat exists in your planning area. If these habitats occur in the planning area then you will need to protect

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these resources through the planning process. This may include moving the location of certain practices.

For Practices such as 'Access Road' or 'Forest Trails and Landings' the planner must also think about impacts beyond the footprint of the road. While the access road may not be impacting an endangered or threatened species directly through filling or earth moving it may facilitate an action that could negatively affect another endangered species. For example, the access road may make a forested tract accessible and the landowner cuts all snags down. This could constitute 'take' under the ESA if this was an area that was known or suspected to support Indiana bats. Any knowledge of such activities would preclude cost share assistance on the proposed access road.

X2 – Practices should have a beneficial effect to threatened or endangered species if planned in a Town and improving a habitat that could support those species. To benefit Indiana bats, suitable foraging habitat may be connected with riparian forest buffer and hedgerow widths of 25 feet or more. Open fields are generally avoided by bats during foraging while forest stands, forest edges and hedgerows are used. Refer to the SPECIES TOWN LIST and habitat descriptions to determine if practice will likely benefit species in the planning unit.

X3 –

Indiana Bats - Tree removal during land clearing, forest management, habitat management or for any other purpose authorized under these practices may adversely affect the Indiana bat if conducted in suitable habitat within the towns listed in the Vermont T+E Species by Town List. It should be assumed that Indiana Bats may be roosting and or foraging, **in suitable habitat**, within 3 miles of a known Indiana bat maternity colony, within 5 miles of a hibernacula (cave) or within any of the towns listed in the SPECIES TOWN LIST. Bat maternity colonies and foraging sites will change over time as the roost trees and habitats change (e.g. roost tree falls over). The listed towns all represent potential locations based on natural communities and age classes, climate and similarity to towns in proximity to known bat colonies or roosts. It is likely that not all roosting sites have been located so it is important to recognize all potential suitable habitats in the Champlain Valley.

Suitable and preferred foraging habitat shall be maintained. General forest bat research suggests that quality foraging habitat is a relatively open stand condition below a main canopy of small sawtimber and larger size classes (8 inch dbh and greater). Stand-wide, sapling to small pole size (0-7 inch dbh) classes are not favorable as these would inhibit bat flight. Presence of a short woody vegetation layer less than 3-6 feet tall is acceptable. Open sugarbushes have been documented to be good foraging areas. Canopy cover should be maintained at 70-80% crown closure.

Maintain all known and potential primary and alternate roost trees. Research from Vermont and elsewhere indicate that they are:

- Live shagbark hickory or black locust trees, or dead or dying trees (in the earlier stages of decay) of any species
- Possess exfoliating bark under which bats roost
- Greater than 8 inches dbh
- Dominant or co-dominant in the forest stand
Dominant – crown extends above typical canopy height, co-dominant – crown is equal to typical canopy height
- Receive some level of direct solar radiation
- Generally within 20 feet of forest cover

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All harvesting of stands with trees with a diameter at breast height (DBH) of less than 8 inches may be conducted at anytime during the year following review of other T & E species requirements.

Any projects planned that may negatively affect roost trees and or suitable foraging habitat within the identified towns will require a consultation with the USFWS and or State Fish and Wildlife Department. Submit form NRCS-VT-CPA-52b to the USFWS when there are potential negative effects to listed species in the project area. They will provide recommendations to limit or eliminate negative effects. This may include recommending to not proceed with the plan as described or recommending a certain portion of the parcel be maintained in a mature forest condition to support the bats. If project consent is given, tree harvesting within stands with trees greater than 8 inches DBH will occur between November 1 and April 1 to avoid harming or killing roosting bats.

Invasive plant control through the Pest Management standard will, in most cases, provide habitat improvements to Indiana bats by favoring native trees and forests. If tree cutting (>8 inch DBH) is associated with this practice then there could be negative effects to the bats. An example of a practice that would need review would be cutting of tree species not native to Vermont such as black locust. While there may be long term benefits there could be short term adverse effects as these are often used as roost trees.

Forest Stewardship plans developed through the **Prescribed Forestry (409)** practice standard within the towns listed in the Vermont T+E Species by Town List for Indiana Bats must follow the Forest Management Guidelines for Indiana Bat Habitat (Vermont Fish and Wildlife Department). This will apply to all stands that meet the above definitions for suitable habitat (e.g. 8" dbh and larger trees).

Bald Eagles - Tree removal or land clearing around Bald Eagle nests or wintering roosts may have an adverse effect on the species. Deciduous and coniferous trees, 18 inch dbh and greater, within 100 meters (~328 feet) of the Connecticut river, the shore of Lake Champlain or other large waterbodies, may provide habitat for wintering bald eagles. Dominant canopy trees in these areas also provide potential future bald eagle nesting sites. Removal of these large trees near water may adversely affect the bald eagle if there is a history of documented use. Contact the NRCS State Biologist for assistance using form NRCS-VT-CPA-52b when a potential adverse effect to Bald Eagle nests or wintering roosts is identified during the planning process. The bald eagle is protected under the Endangered Species Act and the Bald and Golden Eagle Protection Act.

X4 – Vermont NRCS is not providing financial assistance for these practices and is expected to provide little technical assistance. This may also reference practices that are seldom used or have never been used in the State. If NRCS provides financial assistance for these practices, the NRCS State Biologist must be contacted for assistance using form NRCS-VT-CPA-52b during the planning process if the practice will be planned in a geographic location and habitat of a threatened or endangered species. The NRCS field office planner will review the SPECIES TOWN LIST for listed species locations and habitats. Contact the USFWS for assistance in identifying suitable habitats. Form NRCS-VT-CPA-52b will be submitted to the USFWS if there are potential adverse effects to listed species.

X5 – Herbicide application as part of these practices may adversely affect listed plant species if present. Further investigation is required if the practice will be placed in a habitat type where a threatened or endangered plant may reside. The most likely negative affect to listed plants will be

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application of herbicides in Northeastern bulrush habitat. Northeastern bulrush habitat includes sedge meadows, beaver pond margins and hemlock swamps. Check the SPECIES TOWN LIST to determine if potential N.E Bulrush habitat exists in your planning area. Make a visual observation of the area to determine if the species or habitat for the species exists or appears to exist. If these habitats occur in the planning area then you will need to protect these resources through the planning process. This may include moving the location of certain practices. Contact the USFWS or the Vermont Nongame and Natural Heritage Program for assistance in identifying suitable habitats. Submit form NRCS-VT-CPA-52b to the USFWS when a threatened or endangered plant is identified or evidence suggests that it may exist on the project area and when there are potential adverse effects to listed species.

X6 – Armoring or earth moving of stream banks/channels and clearing obstructions may negatively affect threatened or endangered aquatic species. Further investigation is required if the practice will be placed in a habitat type where a threatened or endangered aquatic species may reside. Review the town and habitat type in the SPECIES TOWN LIST for geographic locations of these species. Contact the USFWS for assistance in identifying suitable habitats. Submit form NRCS-VT-CPA-52b to the USFWS when a threatened or endangered aquatic species is identified or evidence suggests that it may exist on the project area and when there are potential adverse effects to listed species.

The most likely negative effect to listed animals will be placement of these practices in dwarf wedgemussel habitat. Dwarf wedgemussels may be found anywhere along the Connecticut river between Bellow's Falls and Guildhall, Vermont as well as at the mouth of tributaries within this stretch of river. If any of these practices are proposed in these areas they will need to be reviewed by the USFWS.